

Amendments to the Specification

Replace paragraph [0012] with the following amended paragraph:

[0012]

~~Fig. 1 is a~~ Figs. 1A and 1B are block diagram diagrams showing the structure of a contactless-tag electronic circuit according to a first embodiment of the present invention, in a resonance circuit-formed state (Fig. 1A) and in a booster circuit-formed state (Fig. 1B).

Replace paragraph [0013] with the following amended paragraph:

[0013]

Fig. 2 is a block diagram of a control circuit of the contactless-tag electronic circuit shown in ~~Fig. 1~~ Figs. 1A and 1B.

Replace paragraph [0014] with the following amended paragraph:

[0014]

Fig. 3 is a plot showing the operation of the contactless-tag electronic circuit shown in ~~Fig. 1~~ Figs. 1A and 1B.

Replace paragraph [0015] with the following amended paragraph:

[0015]

~~Fig. 4 is a~~ Figs. 4A and 4B are block diagram diagrams showing the structure of a contactless-tag electronic circuit according to a second embodiment of the present invention, in a resonance circuit-formed state (Fig. 1A) and in a booster circuit-formed state (Fig. 1B).

Replace paragraph [0019] with the following amended paragraph:

[0019]

The features of the contactless-tag electronic circuit 11 of the first embodiment is the provision of a changeover switch 15 serving as circuit changeover

means for switching between a state, illustrated in Fig. 1A, where the antenna coil L forms the resonance circuit of the transceiving device 13 and a state, illustrated in Fig. 1B, where the antenna coil L forms the booster circuit when the user moves the contactless tag close to and away from the reader/writer.

Replace paragraph [0029] with the following amended paragraph:

[0029]

The resonance-circuit-formed state shown in Fig. 1 1A is the initial state, in which the first capacitor C1 is charged and the second capacitor C2 is charged for a longer time. The control circuit 19 generates a circuit control signal CS for instructing a booster circuit connection based on the rectified voltage Vdd that depends upon the induced electromotive force E, and sends the circuit control signal CS to the circuit changeover means 15. The circuit control signal CS causes changeover of the contacts 15c1 and 15c2 on the antenna coil L to the second set of connection terminals 15-2a and 15-2b for booster circuit connection, thereby forming a booster circuit as shown in Fig. 1B. At this time, the control circuit 19 operates so that the plus (+) pole of the battery B1 is connected to the second connection terminal 15-2a of the changeover switch 15 based on the rectification detection voltage Vcc corresponding to the rectified voltage Vdd.

Replace paragraph [0030] with the following amended paragraph:

[0030]

In the booster-circuit-formed state shown in Fig. 1B, the FET with the charge pump 21 causes a first current from the battery B1 to flow to the antenna coil L via the control circuit 19 to flow a current to the resistor R0 across the gate and source of the FET so as to store a charge in the antenna coil L during the ON time of the FET during which the switching gate signal SG is applied between the gate and source of the FET. When the FET is turned off, a counter electromotive force that depends upon the charge stored in the antenna coil L is caused, and the boosted

voltage based on the counter electromotive force is applied to the second capacitor C2 via the diode D, thus causing a second current to flow.

Replace paragraph [0032] with the following amended paragraph:

[0032]

An electronic circuit 31 for a contactless tag according to a second embodiment of the present invention will be described with reference to Fig. 4 Figs. 4A and 4B. The components having the same functions as those shown in Fig. 1 Figs. 1A and 1B are assigned the same reference numerals, and a description thereof is omitted.

Replace paragraph [0034] with the following amended paragraph:

[0034]

In the contactless-tag electronic circuit 31 of the second embodiment, in the resonance-circuit-formed state shown in Fig. 4 4A, when the detected voltage BV2 of the secondary battery B2 is low, the circuit control signal CS is generated based on the detected voltage BV2. This causes changeover of the contacts 15c1 and 15c2 on the antenna coil L to the second set of connection terminals 15-2a and 15-2b for booster circuit connection, thereby forming a booster circuit as shown in Fig. 4B. During the ON time of the FET, the first current described above is caused to flow to the antenna coil L from the battery B2 via the resistor R2. During the OFF time of the FET, on the other hand, a boosted voltage from the drain is applied to the capacitor C2 via the diode D, thus causing a second current to flow to further store a charge. The voltage across the capacitor C2 is supplied to the resistor R1 and the secondary battery B2, and the secondary battery B2 is charged. Accordingly, the ON-time and OFF-time operations are repeated, thus allowing the secondary battery B2 to be fully charged.